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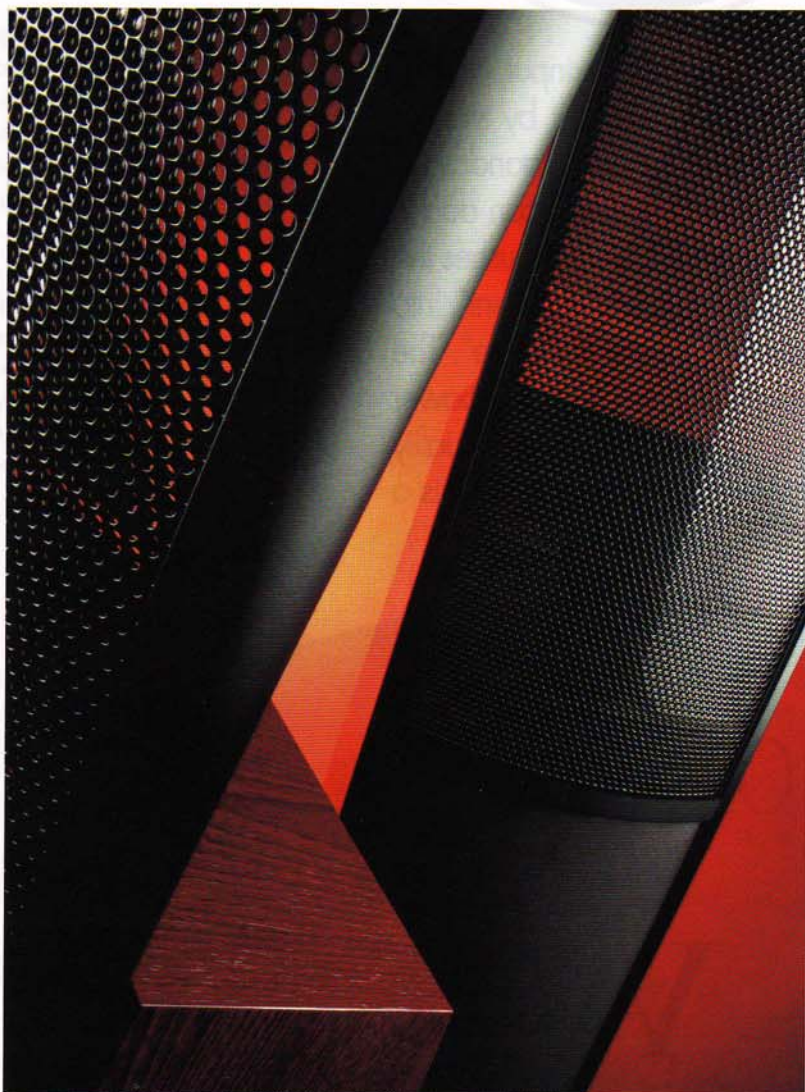


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# "My, you git a Purity mouth..."\*

## The MartinLogan Purity Hybrid Electrostatic Loudspeaker

by Alan Sircom



In many respects, the Purity is the most radical loudspeaker MartinLogan has ever manufactured. Of course the behemoth designs with their full-range panels and intricate sub-woofer enclosures are the real innovators, but the Purity is the shock product in the MartinLogan range.

It's the shock product because it's active. Well, powered – but the crossover per se is limited to controlling the piston driver in the bass unit. Which means MartinLogan is setting its sights squarely on audiences that don't use power amps, and that includes plasma TV users and computer music listeners. Previous MartinLogan designs have had amplifiers driving the bass units, but this one is powered from stem to stern, using a 200-Watt amplifier built into the wooden obelisk just behind the stator panel.

You drive the Purity either by means of the speaker terminals (in which case the amplifier drives the bass unit alone) or through the single phono socket on the back of each unit. In fact, an electrostatic design is perhaps the best design for using as a powered speaker, because you have to have a power lead going in that direction anyway, to power the stator panels. Why not just make the process simpler and put an amp in there too?

Controls on the speaker are limited to a three position toggle switch that gives a three decibel boost or cut to the standard bass output, factoring in mild tailoring for the bass to keep it sweet in most domestic settings (in my room, for example, the -3dB position was best, but a larger room might demand a fuller bass response). We are used to big and especially wide electrostatics in the UK, thanks to Quad. So the size of the Purity might come as a bit of a shock to some. It's a slim, understated design, looking like the typical six-foot tall MartinLogan ►

\*After Deliverance – sort of...

► scaled down to domestically chummy size. The stator panel itself is a 71cm tall sheet of gossamer thin Mylar, stretched over a frame with a gentle convex curve (to give a 30° horizontal dispersion) and kept from harm by a front and back pointillist grille. Or, in native MartinLoganese, the Purity features a Generation 2 Electrostatic Transducer, with CLS™ (Curvilinear Line Source) Wave Launch, ClearSpar™ Spacers, Ultra Rigid AirFrame™ and MicroPerf Stators. There also a set of MiniETC™ (Energy Transfer Coupler) Spikes, to fine tune the angle of the speakers and the crossover uses a Vojtko™ topology. If there was a way of trademarking AC mains, MartinLogan would find it.

The panel crosses over at 450Hz to a pair of long-throw 165mm aluminium coned mid-bass units in the asymmetrical obelisk chamber at the bottom of the speaker. A large, rear-firing port vents and tunes the bass output. MartinLogan cites the frequency range as having  $\pm 3$ dB points at 41Hz and 23kHz and the bottom figure at least seems to hold true in listening (20kHz - or beyond - and I parted company at a Hawkwind gig in the mid 1980s).

There's some deceptively simple yet clever tricks going on here, typified by the wedge-shaped base-plate; turn it one way and the speaker beams for walking round, turn it the other and it fires at a seated listening position. Best of all, turning it this way and that requires the removal of just the one knob: all the sign of a product that's been really well thought out.

This thoroughness of execution extends across the whole speaker concept, not just the cabinet itself. It's the little touches, like the grey cover that you can use to keep the speaker dust-free during the off times (not good with cats, who consider a large grey bag to be an instant playroom, but electrostatics and cats are not a

good combination at the best of times. There's something about the mix of a combination scratching post/kitty assault course and several hundred volts only a claw away that makes them pretty far from cat-friendly speakers). The manual too is perhaps one of the finest examples of the breed and a perfect demonstration of instruction book, er, clarity.

Nothing's left to chance: everything from installation and positioning and even running in is highlighted and explained. This is a good thing because the Purity is typical of the electrostatic breed in being very demanding of optimum placement; the manual helps big time.

Okay, the packaging does not quite conform to our recyclable sustainable save-the-forests Eurogreen rules, but shows how to perfectly package a difficult and fragile shape for transit without making it almost impossible to open. There's only one downside - each

box is large enough to hold both Purity speakers. Between them, they make up an armoire-sized chunk of cardboard.

MartinLogan discovered long ago that hybrid drive may work wonders in Toyotas, but can often suffer criticism in listening rooms. Specifically, the crossover between piston drive units and electrostatic panels is all too audible. Strangely, this is where the Purity has an edge over bigger MartinLogan speaker designs; the narrow front baffle limits the bass to multiple smaller, faster drivers instead of one big, slower design. MartinLogan also learned early on that the bass units needed to be extremely stiff and fast if they stand a ghost of a chance of keeping up with the stator panel, so aluminium cones help a lot.

End result is that the Purity has one of the least noticeable interchanges between treble and bass of any MartinLogan hybrid design. It's not completely inaudible - there's a small part of Leslie Feist's vocal range that just wavers on the ►



► cross-over point on the title track of *Let it Die* that robs her voice of some of its modern-day Rickie Lee Jones clarity. For the most part, though, the Purity does an excellent job of integrating the dynamic bass with the panel top, both temporally and across the frequency spectrum. What is particularly clever is the excellent lack of box coloration; you expect the mids and top to be free from boxiness and honk, but the bass does well to minimise the sound of the box, too. A lot of that is down to the non-parallel cabinet.

The Purity is all about easy compatibility. It has speaker terminals and a phono plug, so you aren't limited by the components elsewhere in the chain. It is also extremely forgiving of source (up to a point) and makes the best of even less than fabulous MP3 recordings.



Of course, the better the recording, the better the Purity sound... which is where the 'up to a point' kicks in. This is, for the most part, an

electrostatic design, with all the uncanny disappearing qualities that bestows on the sound. Yes, the Purity is electrically unfussy enough to make it compatible with a £250 one-box micro-fi system in theory,

but it isn't going to sound that good in that context.

However, as much for fun as for the sake of thoroughness, I hooked my Apple laptop to the Purity speakers, using a naff mini-jack to two phono cable.

It was a lash-up of the worst degree, but in fairness, the Purity speakers more than rose to the challenge.

Although it's close to an abomination given the family history, Quad's 99 series combined CD and pre-amp would be the perfect partner for this speaker system, making it a very reasonably entry into distinctly audiophile territory. Just add a 909 power amp later when funds allow.

It's that beguiling openness to the midrange, the almost 'there' sound of instruments with a strong mid and high frequency component that keeps you coming back for more. They really sound as if they are in the room with you... and nowhere near those panels, too. Meanwhile, the sub-woofer section gives the MartinLogan design something most panels never attain... dynamic range. Of course, the bass, while full, isn't ultimately that cavernous, but the bass limits performance less than before and complements the performance of the panel.

There's an almost unconscious

received wisdom that if you want good electrostatic performance, you have to pay big bucks and end up living with a speaker the size of a cricket sight screen. The Purity is neither of those things; it's small and reasonably priced and yet it works extremely well, especially in British-sized listening rooms. With such easy performance and an easy upgrade path to boot, the Purity will likely be many people's first panel speaker, making many a convert to the panel speaker cause. High-end speakers start here. ➤

#### TECHNICAL SPECIFICATIONS

Type:	Hybrid electrostatic with active drive
Frequency Response:	41-23,000 Hz ± 3dB
Woofers:	2x 165mm aluminium cone drivers
Bass Loading:	Rear reflex
Crossover Frequency:	450 Hz
Sensitivity (Binding Posts):	93 dB
Sensitivity (Line Level):	95 dB
Impedance (Binding Posts):	4 Ohms
Impedance (Line Level):	14 kOhms
Internal Amplifier Power:	200 Watts
Dimensions (WxHxD):	245 x 1329 x 373mm
Weight:	23.2 kg ea.
Number Of UK Dealers:	15
Guarantee:	1yr
Price:	£2090/pr.

#### UK Distributor:

Absolute Sounds  
Tel. (44)(0)20 8971 3909  
Net. [www.absolutesounds.com](http://www.absolutesounds.com)

#### Manufacturer:

MartinLogan Inc.  
Net. [www.martinlogan.com](http://www.martinlogan.com)